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This year's IFTA conference, hosted by the Canadian Society in Vancouver, was a great success. There was a very varied programme of speakers and, to underline just how good they are at reading the markets, the CSTA had chosen the Gold Rush as the conference theme (the price of gold broke out of its three-year channel soon after the delegates got home). For the gala evening Technical Analysis met the Wild West – complete with saloon and casino. It must be said that, by and large, technical analysts seem to be better at predicting where the markets are going than where the roulette wheel will land. Not surprisingly, it was a broker who cleaned up on the evening! All those who attended from the UK would like to extend a big vote of thanks to our Canadian colleagues for hosting such an interesting and enjoyable conference.

Preceding the conference, the IFTA board met and formalised a number of initiatives that they have been working on for some time. Of particular interest to STA members was the formal adoption of IFTA's new Certified Financial Technicians (CFTe) exam programme. CFTe has been developed by IFTA in close collaboration with all the international technical analysis societies and it is designed to set an international standard in technical analysis. The first level in the exam programme consists of a multi-choice paper (CFTe1) which is designed to test a basic knowledge of the subject. The next level is CFTe2, which is the same as the STA diploma, and examinees are expected to have reached a professional level of competence. Both exams are written and marked by the STA Education Committee for IFTA. In future the STA will offer both levels to its members – the diploma, which confers exemption from CFTe2, and CFTe1 so that members can fulfil the CFTe programme.

There have been a number of changes to the STA's Committee. Observant members will have noticed that the Vice-Chairman, Anne Whitby, did not put herself forward for re-election at the AGM. For more years than anyone cares to remember, Anne has been the 'backbone' of the STA. She was a member of ACTA – the STA's previous incarnation – and over the years has been involved in all aspects of the Society's work. There is not enough space here to catalogue all the different hats that Anne has worn. But she and Bronwen Wood were the first to realise that, in order for technical analysis to become more firmly established in the financial community, it was important to start educating people about the subject. They were, therefore, responsible for starting the STA's educational activities. Anne also served as Chairman between 1994 and 1996. Having previously been a member of the IFTA committee, she was then an obvious candidate to act as our IFTA liaison officer. It is perhaps a reflection of Anne's good humour and charm (not to mention her organising ability) that no social event or conference has ever taken place without Anne's guiding hand to steer it through all those 'Houston-we-have-a-problem' moments that inevitably crop up when arranging such occasions. We are delighted to say that she will be staying on as Secretary to the Board and she will also remain on the Ethics Committee. Anne's enormous contribution to the Society was recognised when she was made a Fellow of the Society. But this is an appropriate time to acknowledge again the debt of gratitude that the STA owes to Anne for her unflagging contribution to the Society over the years.

Even though he cannot match Anne's long distance record, we are also extremely sad to lose Murray Gunn from the Board. With Gerry Celaya, Murray has been responsible for creating an active chapter up in Scotland. We wish him well in his new job with the Abu Dhabi Investment Authority. We are delighted that Karen Jones has joined the Board to help to fill the gap left by the departure of Anne and Murray. Karen works for Commerzbank and is a well-respected analyst in the City.

FOR YOUR DIARY

Wednesday, 12th April	Monthly Meeting
Wednesday, 10th May	Monthly Meeting
Wednesday, 14th June	Monthly Meeting

N.B. Unless otherwise stated, the monthly meetings will take place at the Institute of Marine Engineering, Science and Technology, 80 Coleman Street, London EC2 at 6.00 p.m.

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31st May 2006

PUBLICATION OF THE NEXT ISSUE
July 2006

IN THIS ISSUE

STA Exam Results **2**

D. Watts Bytes and Pieces **2**

H. Pruden & M. von Liechtenstein Wyckoff schematics: Visual templates for market timing decisions **3**

K. Edgeley Using volatility to refine technical signals **8**

Book Reviews **9**

D. Sneddon Using Fibonacci **10**

F. Khan The Naked Bar **12**

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Please keep the articles coming in – the success of the Journal depends on its authors, and we would like to thank all those who have supported us with their high standard of work. The aim is to make the Journal a valuable showcase for members' research – as well as to inform and entertain readers.

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STA Diploma Exam

AUTUMN 2005

PASS

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DAVID COOPER
MARK DIMELOW
CRAIG GROOM
ALAN GUSCOTT
ANDREW PHILLOTT
GARETH SYLVESTER
TAT SENG LIM

Bytes and Pieces

Members' Discounts

A number of companies offer STA members a discount on their products (details of these can be found on the STA website) The STA do not endorse any products or software packages and members should ensure they fully investigate any discounted products for themselves.. Over the last month the following offers have been added:

MTPredictor

MTPredictor offers STA Members and Associates a 10% discount on purchase of their real-time and end-of-day trading software. Free Trading Course, MTPredictor Reports(tm), video clips and seminars.
Unique Elliott wave trade finding; risk/reward assessment; position sizing; trade management - for novices and experts alike. Web: http://www.mtpredictor.com Email: sales@mtpredictor.com (quote MTP618 for the 10% discount)

ShareScope

50% off ShareScope subscriptions for STA Members.
Sharescope is an equity-based charting package, with over 90 chart types and analytics. Advanced scanning lets you scan from chart to chart, or apply different chart configurations with a single click of the mouse. Priced at £14 per month. ShareScope last year released their real-time product - ShareScope Pro for the professional trader. Visit the member's section or www.sharescope.co.uk/sta for more details.

Free TraderMades for STA Diploma delegates.

Tradermade are offering free TraderMadeWeb licenses to all STA Diploma delegates for the duration of this year's course. See the website or www.tradermade.com

More discounts offers will be added to the listing as they become available.

ANY QUERIES

For any queries about joining the Society, attending one of the STA courses on technical analysis or taking the diploma examination, please contact:

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Wyckoff schematics: visual templates for market timing decisions

By Hank Pruden and Max von Liechtenstein

Introduction

This article will explain and discuss applications of the Three Schematics used in the Wyckoff Method of technical analysis. It will build upon and extend the "Wyckoff Laws and Tests" article that appeared in the STA's journal in November 2004 (Issue No 51). That article examined the first part of the Wyckoff Equation – the analytical, digital half which consists of "check lists" for the *"three laws"* and *"nine tests".* The Schematics will complete the picture by introducing students of technical analysis to the visual half of the Wyckoff equation.

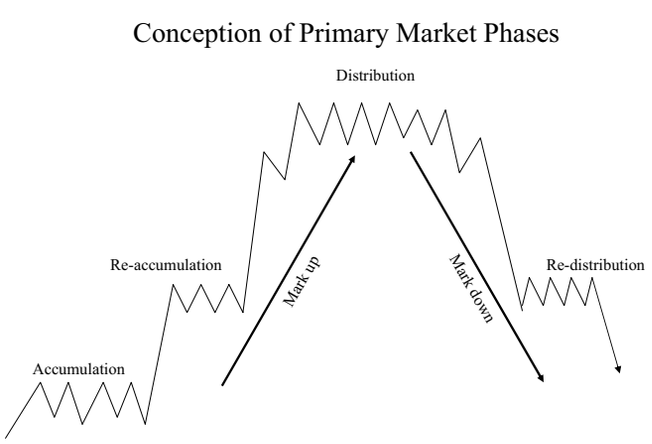
For each of the three Schematics – one for accumulation and two for distribution – there will be an idealised representation of the Schematic. On top of each Schematic there will appear alphabetical and numerical annotations that refer to Wyckoff's interpretations of key phases and junctures found during the evolution of accumulation or distribution. Many of these annotations reflect the work of Mr. Robert G. Evans. It was Mr. Evans who carried on the teaching of the Wyckoff Method after the death of Mr. Wyckoff in 1934. Mr. Evans was a creative teacher who was a master at explaining Wyckoff via analogies.

The Schematic principles will then be applied to charts of Nokia. These were real-time charts used by the authors during conferences in Stockholm in October 2004 and in Malmo in June 2005.

Finally, this article will explain how the use of Wyckoff Schematics may be extended. The authors have long observed that an accumulation schematic is missing. This missing schematic would be the accumulation counterpart of the distribution schematic of declining tops within a trading range. A new schematic for accumulation has been developed by the authors to fill the gap in Wyckoff schematics.

1. Accumulation and Distribution

SCHEMATIC 1



Accumulation:	The establishment of an investment or speculative position by professional interests in anticipation of an advance in price.
Markup:	A sustained upward price movement.
Distribution:	The elimination of a long investment or speculative position.
Markdown:	A sustained downward price movement.

The objective of the Wyckoff method of technical analysis is to improve market timing when establishing a speculative position in anticipation of a coming move where a favourable reward/risk ratio exists to justify taking that position. Trading Ranges (TRs) are places where the previous move has been halted and there is relative equilibrium between supply and demand. It is here within the TR that campaigns of accumulation or distribution develop in preparation for the coming move. It is this force of accumulation or distribution that can be said to build a *cause* which unfolds in the subsequent move. The building up of the necessary force takes time and because during this period the price action is well defined, trading ranges present particularly good trading opportunities with potentially very favourable reward/risk parameters. To be successful, however, we must be able to anticipate correctly the direction and magnitude of the coming move out of the trading range. Fortunately, Wyckoff offers us some guidelines and models by which we can examine a trading range. Schematic 1 provides a visual representation of the four phases of Wyckoff market action.

Accumulation

Schematic 2 shows basic Wyckoff model for accumulation. While this basic model does not offer a schematic for all the possible variations in the anatomy of the TR, it does provide a representation of the important Wyckoff principles, often evident in an area of accumulation, and the identifiable phases used to guide our analysis through the TR toward our objective of taking of a speculative position.

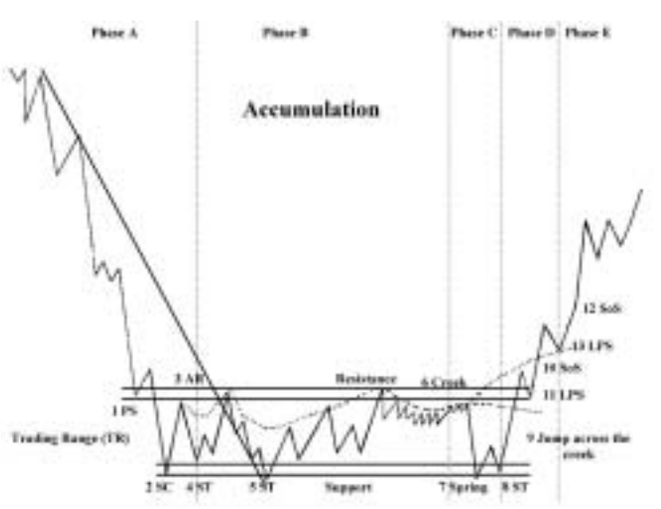
SCHEMATIC 2

Key to abbreviations in SCHEMATIC 2

Accumulation Schematic

Phases A through E: Phases through which the Trading Range passes as conceptualised by the Wyckoff method and explained in the text.

PS – Preliminary Support
SC – Selling Climax
AR – Automatic Rall
STs – Secondary Test(s)
SOS – Sign of Strength
LPS – Last Point of Support



Source: The Anatomy of a Trading Range" by Jim Forte CMT, Market Technicians' Association Journal, Issue 19, 1994

Phase A

In Phase A, supply has been dominant and it appears that finally the exhaustion of supply is becoming evident. This is illustrated in Preliminary Support (PS) and the Selling Climax (SC) where widening spread often climaxes and where heavy volume or panicky selling by the public is being absorbed by larger professional interests. Once selling pressure is

exhausted, an Automatic Rally (AR) ensues the selling climax. A Secondary Test on the downside usually involves less selling than on the SC and with a narrowing of spread and decreased volume. The lows of the Selling Climax (SC) and the Secondary Test, and the high of the Automatic Rally (AR) initially set the boundaries of the trading range. Horizontal lines may be drawn here to help to focus attention on market behaviour in and around these areas.

It is also possible that Phase A can end without dramatic changes in spread and volume. However, it is usually better if it does, in that more dramatic selling will generally clear out all the sellers and pave the way for a more pronounced and sustained markup.

Where a TR represents a Reaccumulation (a trading range within a continuing upmove), we will not have evidence of PS, SC, and ST as illustrated in phase A of Schematic 2.

Phase A will instead look more like Phase A of the basic Wyckoff distribution schematic (described later in the article), nonetheless, Phase A still represents the area of the *stopping of the previous move.* The analysis of Phase B through E would generally proceed in the same way as within an initial base area of accumulation.

Phase B
In Phase B, Supply and Demand on a major basis are in equilibrium and there is no decisive trend. The clues to the future course of the market are usually more mixed and elusive, however some useful generalisations can be made.

In the early stages of Phase B, the price swings tend to be rather wide, and volume is usually greater and more erratic. As the TR unfolds, supply becomes weaker and demand stronger as professionals are absorbing supply. The closer you get to the end or to leaving the TR, volume tends to diminish. Support and resistance lines usually contain the price action in Phase B and will help define the testing process that is to come in Phase C. The penetrations or lack of penetrations of the TR enable us to judge the quantity and quality of supply and demand.

Phase C
In Phase C, the stock goes through a testing process. The stock may begin to come out of the TR on the upside with higher tops and bottoms or it may go through a downside *spring* or *shakeout*, breaking previous supports. This latter test is preferred, given that it does a better job of cleaning out remaining supply from weak holders and creates a false impression as to the direction of the ultimate move. Schematic 2 shows an example of this latter alternative.

A spring is a price move below the support level of a trading range that quickly reverses and moves back into the range. It is an example of a "bear trap" because the drop below support appears to signal resumption of the downtrend. In reality, though, the drop marks the *end* of the downtrend, thus "trapping" the late sellers, or bears. The extent of supply, or the strength of the sellers, can be judged by the depth of the price move to new lows and the relative level of volume on that penetration.

Until this testing process, we cannot be sure the TR is accumulation and must wait to take a position until there is sufficient evidence that mark-up is about to begin. If we have waited and followed the unfolding TR closely, we have arrived at the point where we can be quite confident of the probable upward move. With supply apparently exhausted and our danger point pinpointed, our likelihood of success is good and our reward/ risk ratio favourable.

The shakeout at point 8 on Schematic 2 represents our first prescribed place to initiate a long position. The secondary test at point 10 is better, since a low volume pullback and a specific low risk stop or danger point at point 8 gives us greater evidence and more confidence to act. A sign of strength (SOS) here will bring us into Phase D.

Phase D
If we are correct in our analysis and our timing, what should follow here is a consistent dominance of demand over supply as evidenced by a pattern of advances (SOSs) on widening spreads and increasing volume, and reactions (LPSs) on smaller spreads and diminished volumes. If this pattern does not occur, then we are advised not to add to our position and look to close our original position until we have more conclusive evidence that markup is beginning. If the market or stock progresses as stated above, then we have additional opportunities to add to our position.

Our aim here is to initiate a position or add to our position as the stock or commodity is about to leave the trading range. At this point, the force of accumulation has built a good potential and could be projected by using the Wyckoff point and figure method.

We have waited until this point to initiate or add to our positions in an effort to increase our likelihood of success and maximise the use of our trading capital. In Schematic 2, this opportunity comes at point 12 on the "pullback to support" after "jumping resistance" (in Wyckoff terms this is known as "Backing Up to the Edge of the Creek" after "Jumping Across the Creek" – see Side Bar).

In Phase D, the mark-up phase blossoms as professionals begin to move into the stock. It is here that our best opportunities to add to our position exist, before the stock leaves the TR.

Phase E
In Phase E, the stock leaves the TR and demand is in control. Setbacks are unpronounced and short lived. Having taken our positions, our job here is to monitor the stock's progress as it works out its force of accumulation. At each of points 8, 10 and12 we may take positions and use point and figure counts from these points to calculate price projections and help us to determine our reward/risk prior to establishing our speculative position. These projections will also be useful later in helping us target areas for closing or adjusting our position.

Remember that Schematic 2 shows us just one idealised model or anatomy of a trading range encompassing the accumulation process. There are many variations of this accumulation anatomy. The presence of a Wyckoff principle like a *selling climax* (SC) doesn't confirm that accumulation is occurring in the TR, but it does strengthen the case for it. However, it may be accumulation, redistribution or nothing. The use of Wyckoff principles and phases identifies and defines some of the key considerations for evaluating most trading ranges and helps us determine whether it is supply or demand that is becoming dominant and when the stock appears ready to leave the trading range.

THE "JUMP" ACROSS THE CREEK" ANALOGY

The term "jump" was first used by Robert G. Evans, who piloted the Wyckoff Associates educational enterprise for numerous years after the death of Richard D. Wyckoff. One of his more captivating analogies was the "jump across the creek" (JAC) story he used to explain how a market would break out of a trading range. In the story, the market is symbolised by a Boy Scout, and the trading range by a meandering creek, with its "upper resistance line" defined by the rally peaks within the range. After probing the edge of the creek and discovering that the flow of supply was starting to dry up, the Boy Scout would retreat in order to get a running start to "jump across the creek." The power of the movement by the Boy Scout would be measured by price spread and volume.

Defining the Jump

A jump is a relatively wider price-spread move made on comparatively higher volume that penetrates outer resistance. A backup is a test that immediately follows the jump – a relatively narrow price-spread reaction on comparatively lighter volume tests and confirms the legitimacy of the preceding jump action.

The Wyckoff method instructs you to buy after a backup following an upward jump (a sign of strength) or to sell short after a backup following a downward jump (a sign of weakness). Also according to Wyckoff, you should not buy breakouts because that would leave you vulnerable to swift moves in the opposite direction if the breakout turned out to be false. Hence, at first glance, the Wyckoff method appears to be telling you to buy into weakness and sell into strength.

DISTRIBUTION

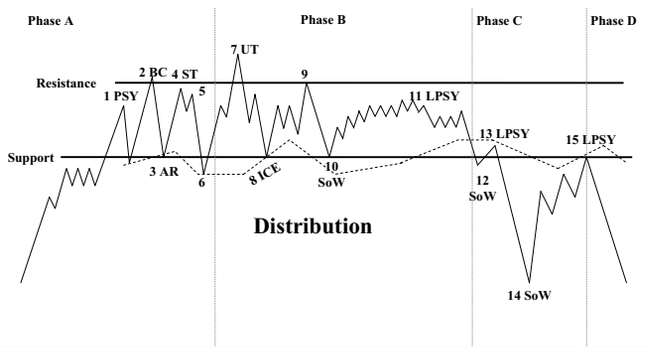
Schematics 3 and 4 represent two variations of the Wyckoff model for distribution. While these models only represent two variations of the

many possible variations in the patterns of a distribution TR, they do provide us with the important Wyckoff principles often evident in the area of distribution and the phases of a trading range that can lead us toward taking a speculative position.

Much of the analysis of the principles and phases of a TR preceding distribution are the inverse of a TR of accumulation, in that the roles of supply and demand are reversed.

Here, the force of "jumping the creek" (resistance) is replaced by the force of "falling through the ice" (support). It is useful to remember that distribution is generally accomplished in a shorter time period than accumulation.

SCHEMATIC 3



Phase A

In Phase A, demand has been dominant and the first significant evidence of demand becoming exhausted comes at point 1 at Preliminary Supply (PSY) and at point 2 at the Buying Climax (BC). It often occurs on wide spread and climatic volume. This is usually followed by an Automatic Reaction (AR) and then a Secondary Test (ST) of the BC, usually on diminished volume. This is essentially the inverse of Phase A in accumulation.

As with accumulation, Phase A in distribution may also end without climactic action and the only evidence of exhaustion of demand is diminishing spread and volume.

Where *Redistribution* is concerned (a TR within a larger continuing downmove), we will see the stopping of a downmove with or without climactic action in Phase A. However, in the remainder of the TR the guiding principles and analysis within Phases B through E will be the same as within a TR of a Distribution market top.

Phase B

The points to be made here about Phase B are the same as those made for Phase B within Accumulation, except clues may begin to surface here of the supply/demand balance moving toward supply instead of demand.

Phase C

One of the ways Phase C reveals itself after the standoff in Phase B is by the "sign of weakness" (SOW) shown at point 10 on Schematic 3. This SOW is usually accompanied by significantly increased spread and volume to the downside that seems to break the standoff in Phase B. The SOW may or may not "fall through the ice," but the subsequent rally back to point 11, a "last point of supply" (LPSY), is usually unconvincing and is likely to be accompanied by less spread and/or volume.

Point 11 gives us our last opportunity to exit any remaining longs and our first inviting opportunity to take a short position. An even better place would be on the rally testing point 13, because it may give us more evidence (diminished spread and volume) and/or a more tightly defined danger point.

An upthrust is the opposite of a spring. It is a price move above the resistance level of a trading range that quickly reverses itself and moves back into the trading range. An upthrust is a "bull trap" – it appears to signal a start of an uptrend but in reality marks the end of the up move. The magnitude of the upthrust can be determined by the extent of the price move to new highs and the relative level of volume on that movement.

On Schematic 4, Phase C may also reveal itself by a pronounced move upward, breaking through the highs of the TR. This is shown at point 11 as an "Upthrust After Distribution" (UTAD). Like the terminal shakeout discussed earlier in the accumulation schematic, this gives a false impression of the direction of the market and allows further distribution at high prices to new buyers. It also results in weak holders of short positions surrendering their positions to stronger players just before the downmove begins. Should the move to new high ground be on increasing volume and "relative narrowing spread" and then return to the average level of closes of the TR, this would indicate lack of solid demand and confirm that the breakout to the upside did not indicate a TR of accumulation, but rather a formation of distribution.

SCHEMATIC 4

Key to abbreviations in SCHEMATIC 3

Distribution Schematics

Phases A through E… phases through which the Trading Range (TR) passes as conceptualised by the Wyckoff method and explained in the text.

PSY – Preliminary Supply

BC – Buying Climax

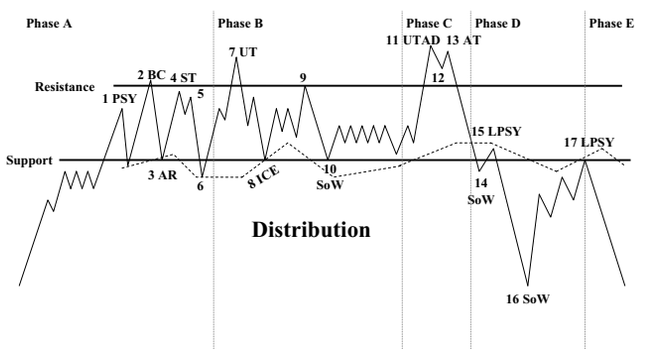
AR – Automatic Reaction

ST – Secondary Test(s)

SOW – Sign of Weakness

LPSY – Last Point of Supply

UTAD – UPthrust After Distribution



Source: "The Anatomy of a Trading Range" by Jim Forte CMT, Market Technicians' Association Journal, Issue, 19 1994

Phase D

Phase D arrives and reveals itself after the tests in phase C show us the last gasps or the last hurrah of demand. In Phase D, the evidence of supply becoming dominant increases either with a break through the "ice" or with a further SOW into the TR after an upthrust.

In phase D, we are also given more evidence of the probable direction of the market and the opportunity to take our first or additional short positions. Our best opportunities are at points 13, 15, and 17 as represented on our Schematics 3 and 4. These rallies represent "Last points of Supply" (LPSY) before a markdown cycle begins. Our "averaging in" of the set of positions taken within Phases C and D as described above represent a calculated approach to protect capital and maximise profit. It is important that additional short positions be added or pyramided only if our initial positions are in profit.

Phase E

In Phase E, the stock or commodity leaves the TR and supply is in control. Rallies are usually feeble. Having taken our positions, we must monitor the stock's progress as it works out its force of distribution.

Successful understanding and analysis of a trading range enables traders to identify special trading opportunities with potentially very favourable reward/risk parameters. When analysing a TR, we are first seeking to uncover what the *law of supply and demand* is revealing to us. However, when individual movements, rallies or reactions are not revealing with respect to supply and demand, it is important to remember the law of *"effort versus result".* By comparing rallies and reactions within the trading range to each other in terms of spread, volume, velocity and price, additional clues may be given as to the stock's strength, position and probable course.
It will also be useful to employ the *law of "cause and effect".* Within the dynamics of a TR, the force of accumulation or distribution gives us the cause and the potential opportunity for substantial trading profits. It will also give us the ability, with the use of point and figure charts, to project the extent of the eventual move out of the TR and help us to determine if those trading opportunities favourably meet or exceed our reward/risk parameters.

"The Ice Story."

We imagine the market in the person of a Boy Scout walking over a frozen river in the midst of winter. If support, the ice, is strong the river covered with ice has no difficulty in supporting the weight of the Boy Scout. That support is seen as a wiggly line connecting the lows, the supports, in a trading range.

A failure by the Boy Scout to reach the upper resistance level of the Trading Range would be a warning of potential weakness. Weakness of the ice would be signalled by the Boy Scout breaking support or falling through the ice.

The Boy Scout has two chances to get back above the ice (i.e., creating a bullish "Spring" situation). On the first upward rally the Boy Scout may fail to regain a footing above the ice. If so, then he will sink lower into the river in order to gather strength to try and rally once more and crack the ice. If on this second attempt, the Boy Scout again fails to penetrate above the ice, he would be most likely to sink downward and drown (i.e., a Bear Market/ Markdown phase would occur).

2. Wyckoff Schematics Applied to Charts of Nokia

Weekly Charts of Nokia display the overall cyclic progress of Nokia from Markup to Distribution, Decline, Accumulation and finally to the commencement of a Markup phase.

The Weekly charts furnish a bigger picture backdrop for the detailed applications of the Schematics for Distribution and then Accumulation. The "jump across the creek" and "ice" analogies (See Side Bar) will be used to help explain the important junctures of distribution and accumulation illustrated on the Daily Charts of Nokia.

Nokia's bull market advance was stopped during the year 2000 around the 500 level by the entry into the market of a dominant force of supply. This force of supply first appeared around March 2000, where it created a sharp sell off down to the vicinity of 350 on the Nokia chart. The demand that came to market to staunch this sell-off marked the point at which the "ice story" commenced. (See Nokia chart 3). We can see that support occurred at points (1), (2), (3), and (4). The rallies from these support levels were becoming increasingly feeble as witnessed by the progressive diminution in volume coupled with the halting of the price advances at a resistance level near 540. Then from point (4) there was a rally that failed to reach the horizontal resistance line. Here the volume shrank appreciably. Moreover, the price level stopped in July near the same 500 level as did the earlier preliminary supply (PSY) in March-April. Hence, this juncture is annotated as a last point of supply for the possible completion of a line of important distribution.

The failure to reach the upper resistance level was a warning of potential weakness. Indeed, a sign of weakness ensued on the next sell off. It is here that we witness support breaking around the 425 level in August 2000. Note the extremely wide price spread and the enormous increase in volume as the Nokia plunged through the meandering support line drawn across the previous lows.

The significance of the price breaks below the support levels of this trading range in Nokia will be confirmed by the subsequent tests. In the ice analogy the Boy Scout has two chances to get back above the ice (i.e., creating a bullish "spring" situation). As can be seen on Nokia chart 2, there were two such rallies. The first attempt stopped at LPSY (2) while the second attempt was halted at about the same level as PSY and LPSY

(1). It can also be seen that the ice, which had provided support, has now reversed roles and is acting as resistance against attempt to move higher. These latter LPSY's (2) and (3) also expand the possible extent of the distribution (supply) pattern, thus generating the potential for a greater descent in price. Nokia ultimately declined to under 100 in year 2004. Nokia's decline was stopped by the Selling Climax (SC), Automatic Rally (AR) and Secondary Test (ST) during July and August 2004. This sequence of stopping actions helped to form a small base of accumulation that in turn helped to propel Nokia upward to the resistance level around 110. Thereafter there was a prolonged period of backing and filling on the chart. Bearish forces remained in control as seen by the line of floating supply around the 110 levels. However, another, lesser branch of the creek

NOKIA CHART 1

NOKIA CHART 2

NOKIA CHART 3

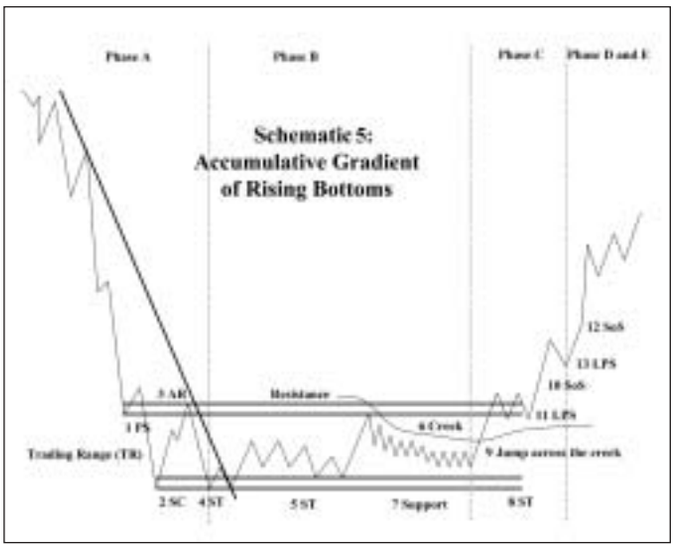
Source: Michael Östlund & Company

was formulated by the dominance of supply over demand during the intermediate down channel that occurred during late 2004 when Nokia's stock price declined from about 115 down to under 100 in early 2005. The "Boy Scout" was cognizant of these developments as he would have been following along the edge of the creek around the 110 level so as to judge best the relative powers of supply and demand. Earlier he would have been following the minor creek as it flowed downward under the weight of supply from 115 to below 100. Then near the end of the year 2004 and early 2005, the Boy Scout would have sensed that the floating supply was drying up. He would have noticed the narrowing price range, the diminishing volume and the absence of material price progress on the downside. It was at this point that he said to himself, "Now if I back way up to make a good run for it, I bet I can jump across the creek". In the process of backing up, he causes the price to drop below minor support around 105. Also in this process the remaining bears (floating supply) are flushed out of the market as evidenced by the downward gap in price that exhausted the supply. A Wyckoff "spring" thus occurs.

Note the wide price spread of about 10 points as Nokia climbs from around 98 to 108. More significantly, note the very significant expansion in

NOKIA CHART 4

Source: Michael Östlund & Company



volume that accompanied that 10 point upward move in price. That large volume day is where the "jump" occurred. Thus we also know that that is where the edge of the meandering (minor) creek occurred. In other words, this successful JAC was also a sign of strength (SOS). A long position could have been initiated during the pull back test following JAC at around 104 with a protective stop loss order entered below the support level, around 95. In practice, such a long is not typically entered by a student of the Wyckoff Method, because it is evident that the major branch of the creek still lies ahead.

After jumping the lower and lesser branch of the creek, the Boy Scout continues upward to the vicinity around 115 where earlier he had found the flow of supply too fast and too deep to jump across. Here again in early 2005 around the 115 price level, the creek creates a wiggly line of resistance, along the peak prices of the recovery rally, or slightly above the 110 price level of Nokia. However, this time things are different. The Boy Scout observes that the volume is shrinking and the price level is narrowing. The Boy Scout is witness to a drying up of the floating supply creating the edge of the major creek/ major resistance level just above 110.

As in the instance of his earlier preparation to jump across the (minor) creek, the Boy Scout again creates a "spring" as he backs up to the 100 level. A relative increase in upward price spread coupled with a notable expansion in the level of volume mark where the Boy Scout jumped the major creek. But, by the time the propulsion of the jump had dissipated, the Boy Scout would have been temporarily tired out by his exertion in jumping across the creek. Hence we would logically anticipate that he would rest and consolidate his strength. He does so by backing up to the edge of the creek (BUEC). At this point we observe further confirmation that supply has been exhausted and demand is in control. The pullback comes on a relatively smaller price spread and shrinkage of volume, thus showing that supply cannot regain control. Consequently, it is now safe for the trader or the investor to enter a long position in the vicinity of 110-115 and to place a sell stop order just below the 100 level.

3. New Schematic: Accumulation

Gradient of Ascending Bottoms

The chart in the next column (Schematic 5) depicts a new or added schematic for accumulation that we wish to name "The Accumulation Gradient of Rising Bottoms." This new Schematic is an attempt to fill an obvious gap in the conceptual body of the Wyckoff Method. In brief, there are currently two schematics for distribution, but only one schematic for accumulation.

The new Schematic for Accumulation is a counterpart to the Schematic for Distribution that features descending price peaks. Richard D. Wyckoff and his Associates time and again pointed out the power of ascending bottoms in a base of accumulation or re-accumulation. They also underscored on numerous occasions the efficiency of a pattern distribution composed of descending price peaks (current Schematic 3).

The logic for ascending bottoms is rooted in the concept of the composite operator. Within a trading range the composite man is seen to accumulate a line of stock from the public who become especially frightened during the downthrusts. The composite man is willing to play the short side of the market as well during the trading range of accumulation so long as he can attract a public following of sellers. But as the trading range proceeds, the new schematic reveals that fewer and fewer sellers remain to propel stocks downward in price. As a consequence, the downwaves become shorter and shorter in length (the bottoms rise) and the composite man as a result accumulates an increasing line of stock. Ultimately there is little left of sellers to coax to the downside and so the composite man reverses his attention and spurs prices upward and out of the trading range. A markup campaign now gets underway led by the composite man.

Elsewhere Pruden has conducted studies of market behaviour with the aid of the Cusp Catastrophe Theory from mathematics/behavioural finance. That theory shows accumulation dissipative gradients and accumulation gradients that occur within a trading range just prior to a buying stampede or a selling panic. Our label of "Accumulation Gradient" for the new schematic was in large part inspired by the Cusp Catastrophe model of market behaviour. Moreover, the literature of Catastrophe Theory describes how the "managers" of an unstable situation will keep things in a close proximity until all the marginal, regional support has been exhausted. This phenomenon is known as the Delay Rule .

Thus the observations of Wyckoff, the logic behind the composite man and the models from Catastrophe Theory combine to buttress our addition of a new schematic for accumulation to complete the conceptual body of the Wyckoff Method in regard to schematics, a powerful visual tool for Wyckoff Analysis.

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i For an excellent introduction to the subject of Wyckoff Schematics see *"The Anatomy of a Trading Range"* by Jim Forte CMT, Market Technicians' Association Journal, Issue, 43 (1994), pp. 47-58.

Using volatility to refine technical signals

This article is a summary of a talk given to the Society on 12th October, 2005

By Kevin Edgeley

Volatility is a useful tool for defining relative price performance. We can use measures of volatility to indicate the strength of a market trend and to adapt oscillators to improve performance, while reducing the trade count.

Volatility has predictable qualities

A time series of volatility exhibits characteristics that are useful to a technical analyst: it reverts to a fairly stationary mean, is cyclical and auto-correlated. The squaring process within the standard deviation formula magnifies price movements.

$$\chi = \frac{\sum x}{n}$$

$$\sigma = \sqrt{\frac{\sum (x-\chi)}{n}}$$

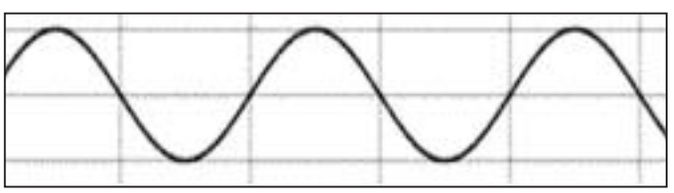


Figure 1: A cyclical, mean reverting, auto-correlated time series.

Bollinger Bands give a better signal than fixed percentage bands

Fixed percentage bands around a moving average do not adapt to changing market conditions, but, in contrast, a volatility envelope will reflect the transition from quiet to active markets. Two standard deviation bands are plotted around a simple 20 day moving average. The bands adjust in response to market volatility to give a measure of whether prices are relatively high or low. Narrow bands infer a ranging market; when prices break out of a range, volatility increases as the trend develops and the bands will widen. Major market moves often occur from flat bases and, although an increase in volatility suggests increased risk, this also give potential for greater profits.

Trends extend to give fat-tailed distributions

A 2 standard deviation band should contain 95% of price action, but price action rarely exhibits a normal distribution. Research in the Goldman Sachs Annual Foreign Exchange Market 2004 publication showed that most currency cross-rates trend only 30% of the time. The predominance of range-trading and trend over-extension leads to a leptokurtic distribution (higher peak and fatter tails).

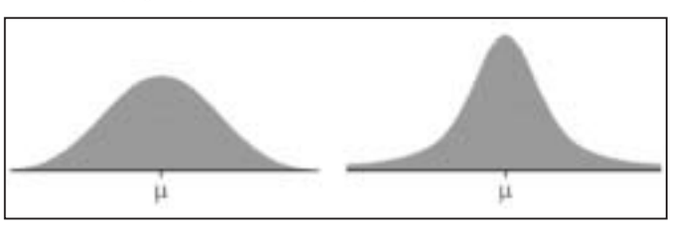


Figure 2: A normal v leptokurtic distribution.

A close outside the bands starts the trend

A close outside of the bands indicates a trending market, and prices will tend to "walk the bands", as the volatility increases. Used in conjunction with a momentum oscillator and traditional chart patterns, we can obtain trading signals to capture market moves. A reversal from one band will often move to the other. The moving average provides a measure of central tendency within ranges and support/resistance within trends.

Figure 3: Trend continuation followed by a double top

Overlaying two Bollinger Bands of different time scales, such as a 21 and 65 day (roughly one and three months), can locate stronger support and resistance points where the bands overlap.

Figure 4: 1 and 3 month Bollinger Bands coincide to signal strong support/resistance

Get ready to trade when the bands squeeze to 6 month narrows

A price move out of a narrow volatility band signals a range break. Look for buy/sell signals when the bands have contracted to the narrowest for six months. The mean reversion assumption will indicate a rise in volatility and a new trend. The longer the look back period, the greater the compression set up and the larger the potential break out. These signals tend to work better at volatility compressions than at expansions.

The trend's in the difference

Measuring the width of the bands provides a cyclical indicator that reflects price compression/expansion and the strength of a trend. When the Bollinger Band Difference is at historically low levels, the use of a momentum oscillator can gauge market extremes within a range. As the difference increases, a moving average system will capture the trend. This indicator works in a similar way to Wilder's ADX, but is more responsive and resets quicker, although it can suffer from more false signals.

Figure 5: A breakout following a Bollinger Band squeeze.

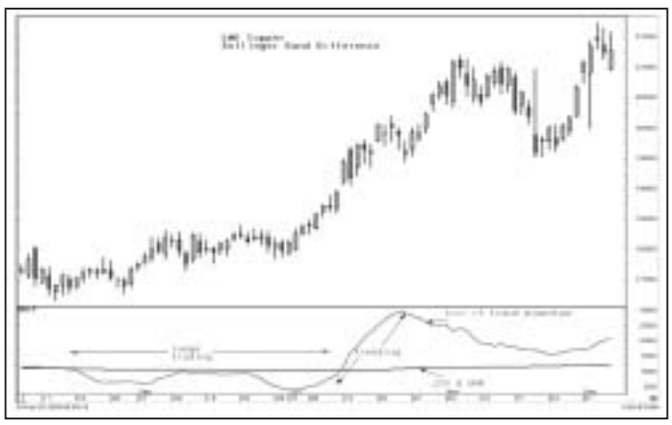


Figure 6: The Bollinger Band Difference as a trend strength indicator

Adaptive oscillators improve performance and reduce trade count

Oscillators are traditionally more profitable within trading ranges and tend to gravitate to the overbought and oversold extremes within a trend. This will prompt a skew away from normality towards a leptokurtic or even U-shaped distribution. It is possible to manually adjust the overbought/oversold levels, but this is too subjective for rigorous analysis. A more dynamic approach is to adjust the oscillator extremes using volatility. By overlaying Bollinger Bands on the oscillator and using the following formula we can create a new volatility adjusted indicator (%b) that measures relative extremes adjusted for market activity.

$$\frac{\text{Oscillator} - \text{lowerBollingerBand}}{\text{upperBollingerBand} - \text{lowerBollingerBand}}$$

This system can also provide overbought/oversold measures to unbounded oscillators such as Momentum and MACD. We found not only an improvement in performance when compared to a trading rule on the base case oscillator, but also a 60% reduction in the trade count.

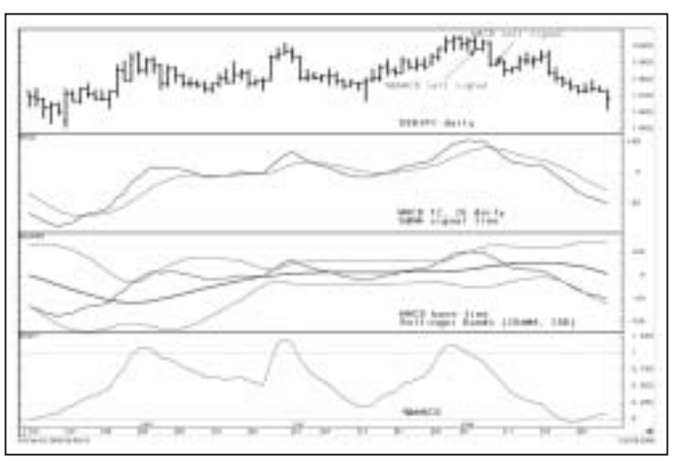


Figure 7: Adapting oscillators using volatility.

Kevin Edgeley, CFA, MFTA, Goldman Sachs International

Book Reviews

The Definitive Guide to Point and Figure

Jeremy du Plessis, Harriman House Publishing £59.95; 515pp

Faced with the Desert Island Discs question, "what book, apart from the Bible and the works of Shakespeare, would you choose to take with you", Robin Griffiths' advice is to take *The Definitive Guide to Point and Figure* by Jeremy du Plessis. I cannot claim to have to have been shipwrecked but I did include Jeremy's book as part of my reading over the Christmas holidays and, as someone who does not use point and figure charts on a regular basis, was very pleased to have done so. In reviewing this book, I must declare an interest. Jeremy is a friend and a Fellow of the Society of Technical Analysis. However, I am confident that those who do not know Jeremy will be equally impressed by the authority that he brings to this subject.

Point and figure charts are one of the cornerstones of technical analysis and, if used correctly, provide the 'voice' of the market. Those unfamiliar with this type of chart will find the author leads them carefully through the first principles of constructing a point and figure chart and then on to how to use these charts to analyse price movements.

However, this is not just a book for the newcomer to point and figure. There are extremely useful sections on when to ignore signals and potential trading traps. There are tips on how to assess the strength of a particular trend as well as chapters on applying a whole array of indicators and market breadth to point and figure. Although time is not a factor in the construction of a point and figure chart, the author shows how tools such as moving averages, parabolics and Bollinger Bands can be applied to this method of analysis.

The publishers, Harriman House, must also be given credit for a beautifully-produced book. The charts are clearly laid out and diagrammatic representations are supported by market examples.

This book was 20 years in the making and it is well worth the wait. As John Murphy notes 'Rarely does a book live up to its claim of being the 'definitive' guide to something. Jeremy du Plessis' new book lives up that claim and more' - a sentiment that I would whole-heartedly endorse since it has certainly encouraged me to start looking more often at point and figure charts. John Murphy's *'Technical Analysis of the Futures Markets'* is the classic general introduction to the subject of technical analysis, but inevitably people must specialise and this book will undoubtedly become the classic for those looking to go down the route of point and figure charts.

Deborah Owen

Fibonacci and Gann Applications in Financial Markets

George A. MacLean, John Wiley & Sons Ltd. £45; 230pp

This is a serious book about technical analysis. It is more than just a practical and thorough work. Personal experience and consequent clear strong views form the foundations that build into an elegant and utilitarian appreciation of the whole of our field.

Fibonacci, of course, is explained and applications examined. During that examination, a rigorous process, their relevance is put into a context of overall analysis. It brings a sense of proportion to Fibonacci studies lacking in many texts. Complexity is not shunned and some may find the deep and detailed argument demanding at times. (There is, however, a summary at the end of each section, which will also be useful when researching or revising).

The author openly states that he is a great fan of Gann analysis and has used it successfully. He makes an admirable case. The penultimate chapter is titled "Other Interesting Studies Using Synthetic Ratios" and should you think it a dry and abstruse subject you would be horribly wrong. Don't make the mistake of thinking the book is too deep for you. It is a book for those who perceive that there is much, much more to technical analysis than the propagation of signals.

John Cameron

Using Fibonacci

This article is a summary of a talk given to the Society on 9th November, 2005 By David Sneddon

Fibonacci is a tool that can help to identify *potential* resistance and support levels.

It is quite common to see Fibonacci glamourised into something more complex, a "roadmap" for the markets for example. Given the fascinating background to the ratios and their common association with Elliott Wave theory, it is perhaps not surprising that there are many skilled and successful traders who use Fibonacci in this way. Our favoured application, however, is more straightforward. We use the Fibonacci ratios to identify support and resistance levels, which we can then use in conjunction with classical trend analysis.

Identifying whether a market is trending is of paramount importance. Fibonacci ratios, along with other forms of support and resistance levels – old lows, old highs, trendlines, moving averages, gaps etc. – are there to help us identify where a trend, or a correction to the trend, may stop. The more reasons there are for traders to regard a level as significant, the more likely it is the market may stop there.

First, where exactly do the Fibonacci ratios come from? What is Fibonacci? Actually, we should start with who is Fibonacci? Leonardo Fibonacci (or Leonardo of Pisa) was born around 1170, and was one of the most famous mathematicians of his time. His major work – *Liber Abaci,* the "Book of the Abacus" – was published in 1202. He is widely believed to have introduced the Hindu-Arabic numeric system into Europe, the number system we use today.

One of his most famous problems was the following:

"A certain man put a pair of rabbits in a place surrounded on all sides by a wall. How many pairs of rabbits can be produced from that pair in a year, if it is supposed that every month each pair begets a new pair which from the second month on becomes productive?"[1]

The solution to this growth population of rabbits is the following:

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233 .....

The next number in the sequence is obtained by adding together the previous two. This mathematical series has come to be know an as the 'Fibonacci Sequence'. (actually so named by Edouard Lucas, a French mathematician)

This sequence has some very interesting and significant properties. Dividing each number by its next higher number asymptotically tends towards 0.618 as we approach infinity. i.e.

2/3=0.666 ; 3/5=0.6 ; 5/8=0.625 ; 8/13=0.615 ; 13/21=0.619 .....-> 0.618

Also, dividing each number by its preceding number tends to 1.618 as we approach infinity. These familiar ratios became known as 'The Golden Mean – 0.618', and 'The Golden Ratio – 1.618', or Phi (Φ).

Φ has many interesting properties, including:

1.618 * 0.618 = 1

1.618 * 1.618 = 1.618 + 1 = 2.618

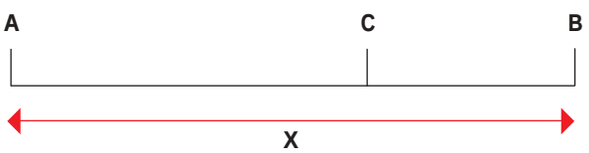
1/1.618 = 1.618 – 1 = 0.618

The most significant property though, and why Φ is so important in mathematics is the following:

$$\Phi + \Phi 2 = \Phi * \Phi 2$$

Φ is the bridge between addition and multiplication.
Φ has many applications throughout geometry.

It is the solution to Euclid's "Golden Section" of a line:



C divides the line into two parts such that X/(C-A) = (C-A)/(B-C) = 1.618.

This golden line can then be expanded to construct the 'Golden Rectangle'. From the rectangle, we can then construct a spiral – the Φ-spiral. The spiral is infinite, and its shape or structure remains unchanged, however large or small the spiral.

The Φ-spiral appears throughout nature, in shells, pine cones, animal horns, star galaxies, proportions of the human body, even it is argued, in the proportions of the great pyramids.

Bert Myers ~ X - ray : Nautilus Shell

The Fibonacci ratios and numbers appear throughout nature, describing the most important growth and decay patterns. Fibonacci numbers are part of a natural harmony that look good, feel good, sound good. Financial markets are a function of natural human emotion and psychology. Why not apply Fibonacci here as well?

The most important ratios are – 61.8% 50% 38.2%

The first and most popular application of the Fibonacci ratios is in determining corrective targets in an existing trend.

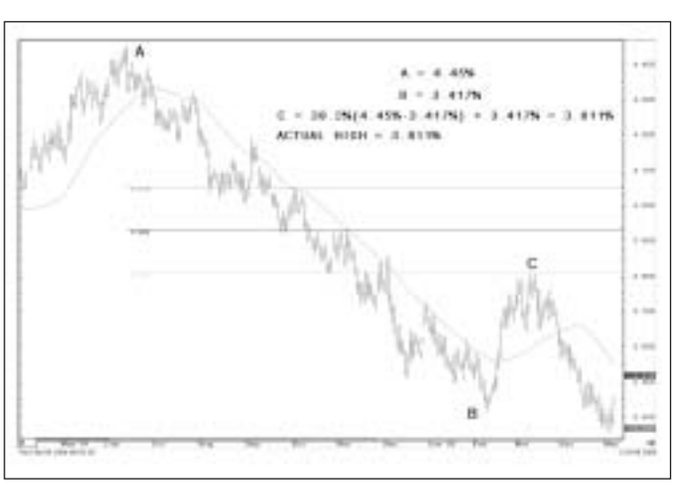


Chart 1: 10yr German Yield. *Source: CQG.*

We look for these retracement levels to act as potential support/target levels for a correction to the existing trend.

We apply retracements over any timeframe, and in the fixed income markets, to curves and spreads as well.

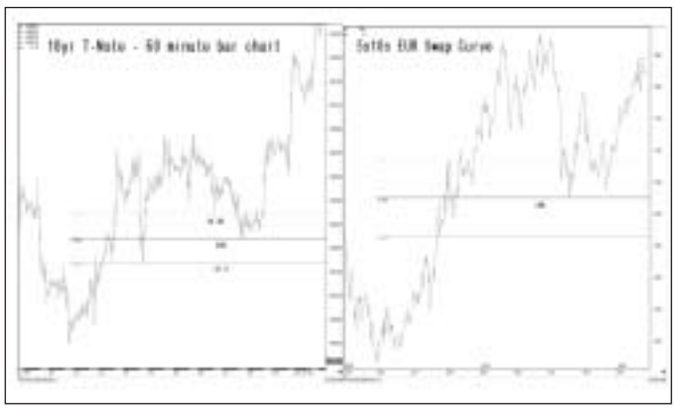


Chart 2
10yr T-note (60 min chart) and 5/10 EUR swap curve *Source: CQG.*

In practice, we also apply retracement levels to several "stages" of the trend, looking for "clusters" of levels.

Chart 3: 5yr US Yield *Source: CQG.*

This brings us back to our earlier statement. The more reasons there are for a level to be significant, the greater the likelihood of that level holding. On the chart of USD/JPY below, support point F is not only the 38.2% retracement of the entire rally A-B, but also the 50% retracement of the rally C-B. In addition, there is also price support from the old highs D and E, as well as the long-term 100-day simple moving average. We would view this to be a much stronger entry level into the uptrend.

Chart 4: Dollar/Yen *Source: CQG*

Another popular application of the use of the ratios is in Fibonacci projections. Here, we look to identify potential resistance and support levels in the direction of the current trend. The most common projections ratios are – 61.8%, 100% and 161.8%.

We apply these ratios once we have seen a move A-B, and then a subsequent correction to C.

In the case of an uptrend, determine the vertical distance B-A. Apply the three projection ratios to this distance, and then, add to the low C.

Chart 5: AUD/US dollar *Source: CQG.*

Again, in practice, one of the most powerful applications of this approach is when we can identify "clusters" of levels. For this chart of the FTSE 100, applying projection ratios at all the respective uplegs results in a "cluster" of lines, and a more reliable resistance/target.

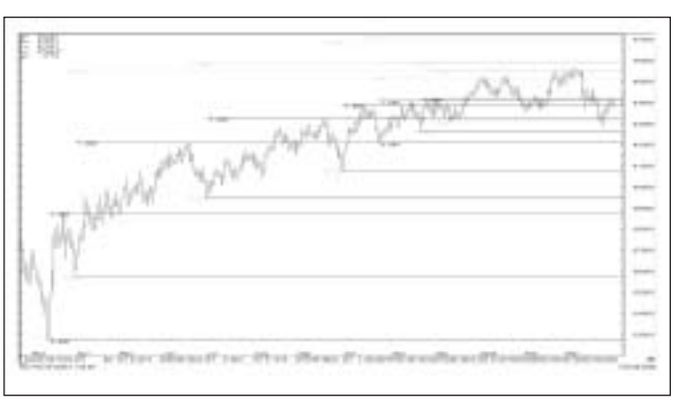


Chart 6: FTSE 100 *Source: CQG.*

Fibonacci retracements and projections are an extremely valuable tool in our technical arsenal. At the end of the day though, they are there to help us identify potential resistance and support levels. Their most effective application is when we combine them with identifying other areas of support and resistance. The more reasons there are for a level to be support/resistance, the more likely it is the market will hold there. Finally, the key to successful analysis and trading is then employing the discipline to act on this information.

Sources of reference:

The Golden Ratio, by Mario Livio

The New Fibonacci Trader, Robert Fischer & Jens Fischer

[1] Mario Livio, – The Golden Ratio

The Naked Bar

By Furhaan Khan

Orthodox technical analysis teaches us that markets trend and therefore the best way to profit from market movements is to identify the presence of a trend and trade in that direction until the trend has come to an end. A simple idea in theory, yet one which most traders find difficult to implement. The problem with trend trading is that you are always late joining and always late leaving the trend.

Top and bottom pickers have an almost opposite philosophy; these traders try to identify the peaks and troughs in the market and attempt to participate in the moment at which the market turns. This method of trading is probably the hardest to implement but, if successful, can be highly profitable.

The problem with both of these methods is the difficulty we encounter in identifying when a trend has come to an end, and when one is beginning. There are many popular methods that traders use to achieve this, including moving averages, oscillator divergences and momentum indicators. One way I have found of identifying the end of a trend is to use what I call the naked bar. If I'm feeling particularly daring, the naked bar will not only signal that the top or bottom is in place, but it will encourage me to trade in the opposite direction to the recent trend.

The concept behind the naked bar is that when a trend ends or begins, it should enter a new market environment. What we are looking for in the naked bar is a bar which has broken away from the previous trend and has, therefore, signalled the beginning of a new trend. It can also help identify when a market is range bound and when it is trending.

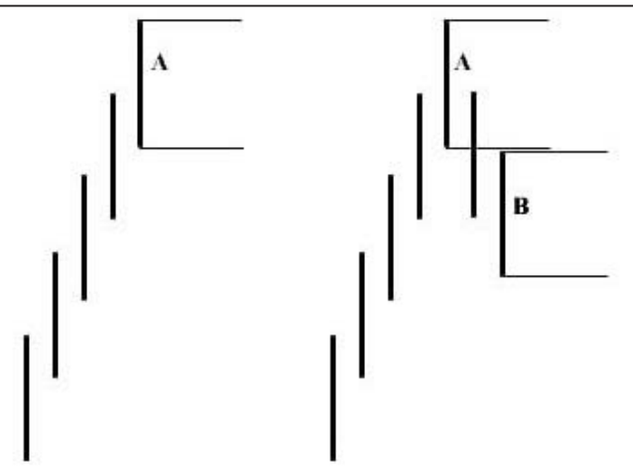


Fig 1
Bar A is the extreme bar for the uptrend and therefore the first bar that trades completely below the range of bar A will be the naked bar. Bar B is an example of what an idealised naked bar would look like.

Identifying the Naked Bar

The naked bar is simply the first bar that trades completely outside the range of an extreme bar. What this means is that in an uptrend, we are looking for the bar which has made the highest high so far, and following this the naked bar will be the first bar which trades completely below the range of this extreme bar (fig 1). The naked bar does not need to occur immediately after the extreme, it can occur any number of bars after the extreme bar. In a downtrend the naked bar is the first bar that trades entirely above the range of the bar that has made the lowest low so far (fig 2).

Naked Bars and Congestion

In sideways moving markets the naked bar is a little trickier to identify. In any period of sideways trading there will be an extreme high bar and an extreme low bar, therefore, the first bar that trades completely below the range of the extreme high bar will be the naked bar indicating a downside break, and the first bar trading completely above the range of the extreme low bar will be the naked bar indicating an upside break (fig 3). Naked bars can be used to identify periods of congestion or sideways trends. The traditional definition of a sideways trend is any period that does not have both higher highs and lows or lower highs and lows. If there are no naked bars within a certain period, for example 10 days, then the market is in congestion.

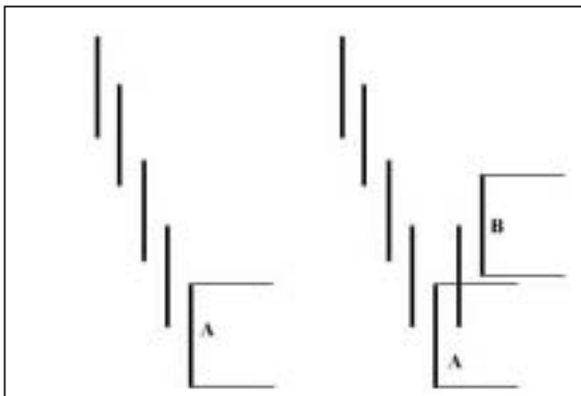


Fig 2
Bar A is the extreme bar for the downtrend and therefore the first bar that trades completely above the range of bar A will be the naked bar. Bar B is an example of what an idealised naked bar would look like.

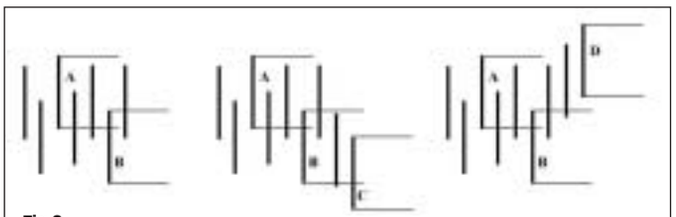


Fig 3
Bar A is the extreme upper bar for the congestion and therefore any bar that trades completely below the range of bar A will be the naked bar (Bar C). Bar B is the extreme lower bar for the congestion and therefore any bar that trades completely above the range of bar B will be the naked bar (Bar D). Bar C would indicate the beginning of a downtrend from a period of congestion and equally Bar D would indicate the beginning of an uptrend.

Trading the Naked Bar

The end of an uptrend is signalled by the appearance of a naked bar, but it is advisable to wait for a breach of the naked bar to the downside as your exit point. This should ensure you do not give back too much profit. In a downtrend, wait for a breach of the naked bar to the upside before exiting the trade.

The naked bar can also be used to initiate new trades. This can be done by using the criteria suggested above, whereby a long position is taken after the naked bar is identified in a downtrend and then breached to the upside. The breach can be used to enter a long trade, and the lowest low of the downtrend would be an excellent place to put a stop loss. The opposite can be down to initiate a short position.

Although the naked bar can be used as a stand alone pattern, I find that it is best used as a confirmation of a change in the market environment. This has the disadvantage of losing more on entry, but it helps avoid trading false breaks.

The naked bar can be used in any timeframe for any market. One use is to trade intraday in the direction of a prevailing longer term trend. This method works quite successfully since it allows for tight stop losses whilst allowing the potential to participate in major market moves.

Conclusion

Once familiar with the basic technique, naked bars can be used as a base around which trading systems can be designed. Naked bars are very useful in defining trends and congestion areas and can be used to give definite trading signals.

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